

TITLE

METHOD OF DECREASING LIQUIRITIGENIN-DERIVED ISOFLAVONES
RELATIVE TO TOTAL ISOFLAVONES IN PLANTS AND
PLANTS PRODUCING REDUCED RATIO OF LIQUIRITIGENIN-DERIVED
ISOFLAVONES RELATIVE TO TOTAL ISOFLAVONES

ABSTRACT

This invention pertains to methods for decreasing the ratio of
liquiritigenin-derived isoflavones relative to total isoflavone levels in
isoflavonoid-producing plants and plant parts by transforming plants with a
recombinant DNA construct comprising a nucleic acid sequence of at least
200 nucleotides and having at least 75% sequence identity to a polynucleotide
encoding a chalcone reductase. More preferably, this invention pertains to methods
for decreasing the ratios of daidzein and glycitein and their conjugates relative to
total isoflavone levels in soybean plants and soybean plant parts by transforming
plants with a recombinant DNA construct comprising a nucleic acid sequence of at
least 200 nucleotides and having at least 75% sequence identity to a polynucleotide
encoding a chalcone reductase.

LMC/dmm